106TH CONGRESS
2D SESSION

# S. 2755

To further continued economic viability in the communities on the southern High Plains by promoting sustainable groundwater management of the southern Ogallala Aquifer.

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IN THE SENATE OF THE UNITED STATES

JUNE 20, 2000

Mr. BINGAMAN (for himself and Mr. DOMENICI) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

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# A BILL

To further continued economic viability in the communities on the southern High Plains by promoting sustainable groundwater management of the southern Ogallala Aquifer.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the ''Southern High Plains Groundwater Resource Conservation Act''.

**SEC. 2. FINDINGS AND PURPOSES.**

(a) FINDINGS.—Congress finds that—

(1) a reliable source of groundwater is an essential element of the economy of the communities on the High Plains;

(2) the High Plains Aquifer and the Ogallala Aquifer are closely related hydrogeographic structures. The High Plains Aquifer consists largely of the Ogallala Aquifer with small components of other geologic units;

(3) the High Plains Aquifer experienced a dramatic decline in water table levels in the latter half of the twentieth century. The average weighted decline in the aquifer from 1950 to 1997 was 12.6 feet (USGS Fact Sheet 124–99, Dec. 1999);

(4) the decline in water table levels is especially pronounced in the Southern Ogallala Aquifer, reporting that large areas in the states of Kansas, New Mexico, and Texas experienced declines of over 100 feet in that period (USGS Fact Sheet 124–99, Dec. 1999);

(5) the saturated thickness of the High Plains Aquifer has declined by over 50% in some areas (1186 USGS Circular 27, 1999). Furthermore, the Survey has reported that the percentage of the High Plains Aquifer which has a saturated thickness of 100 feet or more declined from 54 percent to 51

percent in the period from 1980 to 1997 (USGS Fact Sheet 124–99, Dec. 1999);

(6) the decreased water levels in the High Plains Aquifer coupled with higher pumping lift costs raise concerns about the long-term sustainability of irrigated agriculture in the High Plains. (''External Effects of Irrigators' Pumping Decisions, High Plains Aquifer'', Alley and Schefter, American Geophysical Union, paper #7W0326; Water Resources Research, Vol. 23, No. 7 1123–1130, July 1987);

(7) hydrological modeling at the United States Geological Survey indicates that in the context of sustained high groundwater use in the surrounding region, that reductions in groundwater pumping at the single farm level or at a very local level of up to 100 square miles, have a very time limited impact on conserving the level of the local water table, thus creating a disincentive for individual water users to invest in water conservation measures. (''External Effects of Irrigators' Pumping Decisions, High Plains Aquifer'', Alley and Schefter, American Geophysical Union, paper #7W0326; Water Resources Research, Vol. 23, No. 7 1123–1130, July 1987);

(8) incentives must be created for conservation of groundwater on a regional scale, in order to achieve an agricultural economy on the Southern High Plains that is sustainable; and

(9) for water conservation incentives to function, Federal, State, tribal, and local water policy makers, and individual groundwater users must have access to reliable information concerning aquifer recharge rates, extraction rates, and water table levels at the local and regional levels on an ongoing basis.

(b) PURPOSES.—To promote groundwater conservation on the Southern High Plains in order to extend the useable life of the Southern Ogallala Aquifer.

**SEC. 3. DEFINITIONS.**

For purposes of this Act:

(1) HIGH PLAINS AQUIFER.—The term ''High Plains Aquifer'' is the groundwater reserve depicted as Figure 1 in the United States Geological Survey Professional Paper 1400–B, titled Geohydrology of the High Plains Aquifer in Parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming.

(2) HIGH PLAINS.—The term ''High Plains'' refers to the approximately 174,000 square miles of land surface overlying the High Plains Aquifer in

the States of New Mexico, Colorado, Wyoming, South Dakota, Nebraska, Kansas, Oklahoma, and Texas.

(3) SOUTHERN OGALLALA AQUIFER.—The term ''Southern Ogallala Aquifer'' refers to that part of the High Plains Aquifer lying below 39 degrees north latitude which underlies the States of New Mexico, Texas, Oklahoma, Colorado, and Kansas.

(4) SOUTHERN HIGH PLAINS.—The term ''Southern High Plains'' refers to the portions of the States of New Mexico, Texas, Oklahoma, Colorado, and Kansas which overlie the southern Ogallala Aquifer.

(e) SECRETARY.—The term ''Secretary'' refers to either the Secretary of the Interior or the Secretary of Agriculture as appropriate.

(f) The term ''water conservation measures'' includes measures which enhance the groundwater recharge rate of a given piece of land, or which increase water use efficiencies.

**SEC. 4. HYDROLOGIC MAPPING, MODELING, AND MONITORING.**

(a) The Secretary of the Interior, working through the United States Geological Survey, shall develop a comprehensive hydrogeologic mapping, modeling, and moni-

toring program for the Southern Ogallala Aquifer. The program shall include on a county-by-county basis—

(1) a map of the hydrological configuration of the Aquifer; and

(2) an analysis of:

(A) the current and past rate at which groundwater is being withdrawn and recharged, and the net rate of decrease or increase in aquifer storage;

(B) the factors controlling the rate of horizontal migration of water within the Aquifer;

(C) the degree to which aquifer compaction caused by pumping and recharge methods is impacting the storage and recharge capacity of the groundwater body; and

(D) the current and past rate of loss of saturated thickness within the Aquifer.

(b) ANNUAL REPORT.—One year after the enactment of this Act, and once per year thereafter, the Secretary shall submit a report on the status of the Southern Ogallala Aquifer to the Senate Committee on Energy and Natural Resources, to the House Committee on Resources, and to the Governors of the States of New Mexico, Oklahoma, Texas, Colorado, and Kansas.

**SEC. 5. GROUNDWATER CONSERVATION ASSISTANCE.**

(a) FEDERAL ASSISTANCE.—The Secretary of Agriculture, working through the Natural Resources Conservation Service, is hereby authorized and directed to establish a groundwater conservation assistance program for Southern Ogallala Aquifer.

(b) DESIGN AND PLANNING.—The Secretary shall provide financial and technical assistance, including modeling and engineering design to States, tribes, and counties, conservation districts, or other political subdivisions recognized under State law, for the development of comprehensive groundwater conservation plans within the Southern High Plains. This assistance shall be provided on a cost share basis ensuring that:

(1) the Federal funding for the development of any given plan shall not exceed fifty percent of the cost; and

(2) the Federal funding for groundwater water conservation planning for any one county, conservation district, or similar political subdivision recognized under State law shall not exceed $50,000.

(c) CERTIFICATION.—The Secretary shall create a certification process for comprehensive groundwater conservation plans developed under this program, or developed independently by States, tribes, counties, or other po-

litical subdivisions recognized under State law. To be certified, a plan must:

(1) cover a sufficient geographic area to provide a benefit to the groundwater resource over at least a 20 year time scale;

(2) include a set of goals for water conservation; and

(3) include a process for an annual evaluation of the plan's implementation to allow for modifications if goals are not being met.

**SEC. 6. IMPLEMENTATION ASSISTANCE.**

Farming operations within jurisdictions which have a certified conservation plan in accordance with subsection (5)(c) of this title shall be eligible for:

(1) WATER CONSERVATION COST-SHARE ASSISTANCE.—The Secretary, working through the Natural Resources Conservation Service, may provide grants to individual farming operations of up to $50,000 for implementing on farm water conservation measures including the improvement of irrigation systems and the purchase of new equipment: *Provided,* That the Federal share of the water conservation investment in any one operation be no greater than 50%: *Provided further,* That each water conservation measure be in accordance with a con-

servation plan certified under section 5(c) of this title.

(2) IRRIGATED LAND RESERVE.—Through the 2020 calendar year, the Secretary shall formulate and carry out the enrollment of lands in a groundwater conservation reserve program through the use of multiple year contracts for irrigated lands which would result in significant per acre savings of groundwater resources if converted to dryland agriculture.

(3) CONSERVATION RESERVE PROGRAM ENHANCEMENT.—Lands eligible for the Conservation Reserve Program established under 16 U.S.C. 3831 which would result in significant per acre savings of groundwater resources if removed from agricultural production shall be awarded 20 Conservation Reserve Program bid points, to be designated as groundwater conservation points, in addition to any other ratings the lands may receive.

**SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

(a) IN GENERAL.—There are authorized to be appropriated $70,000,000 annually through the fiscal year 2020 to carry out this Act. Of that total amount:

(1) there are authorized to be appropriated $5 million annually through the fiscal year 2020 for

hydrogeologic mapping, modeling, and monitoring under this Act;

(2) there are authorized to be appropriated $5 million annually through fiscal year 2020 for groundwater conservation planning, design, and plan certification under this Act;

(3) there are authorized to be appropriated $30 million annually through fiscal year 2020 for cost-share assistance for on farm water conservation measures; and

(4) there are authorized to be appropriated $30 million annually through fiscal year 2020 for enrollment of lands in an Irrigated Lands Reserve.

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